



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/707,386	11/07/2000	Jack D. Pippin	423901674C2D2	9388
22850	7590	01/06/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			LUU, CHUONG A	
			ART UNIT	PAPER NUMBER
			2825	

DATE MAILED: 01/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

**Office Action Summary**

Application No.

09/707,386

Applicant(s)

PIPPIN, JACK D.

Examiner

Chuong A Luu

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2825

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

## **PRIOR ART REJECTIONS**

### **Statutory Basis**

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

### **The Rejections**

Claims 1-2, 4-5, 9-10, 12-13 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuo (U.S. 5,255,149).

Art Unit: 2825

Matsuo discloses a temperature abnormality detector with

Respect to claims:

(1); (12) a fail safe sensor; halt logic to halt operation of the integrated circuit in response to the fail safe sensor indicating that a threshold temperature has been exceeded (see column 2, lines 40-68; column 3, lines 42-53);

(2); (13) wherein the threshold temperature is a predetermined fixed critical temperature (see column 2, lines 40-68);

(4); (15) wherein the halt logic protects the integrated circuit without software control (see column 2, lines 40-68);

(5) a plurality of thermal sensors placed across the integrated circuit; an averaging mechanism in communication with the fail-safe sensor to calculate an average temperature from the plurality of thermal sensors (see column 2, lines 40-68; column 3, lines 42-53);

(9) further comprising threshold adjustment logic in communication with the fail-safe sensor to increase the threshold temperature value to a new threshold temperature value in response to the fail-safe sensor indicating that the threshold temperature value has been exceeded (see column 2, lines 40-68; column 3, lines 42-53);

(10) wherein the threshold adjustment logic is further to lower the new threshold temperature to detect decreases in temperature (see column 2, lines 40-68).

Claims 3, 6-8, 11, 14 and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo (U.S. 5,255,149) in view of Cacciatore (U.S. 4,799,176).

Matsuo teaches the outlined features above except for wherein the halt logic is to inhibit operation of the integrated circuit by stopping a clock for the integrated circuit; further comprising clock adjustment logic in communication with the fail-safe sensor to control temperature of the integrated circuit by increasing and decreasing a clock frequency of the integrated circuit. However, Cacciatore discloses a programmable electronic digital thermostat with **(3)**; **(14)** wherein the halt logic is to inhibit operation of the integrated circuit by stopping a clock for the integrated circuit (see column 4, lines 1-27); **(6)** further comprising clock adjustment logic in communication with the fail-safe sensor to control temperature of the integrated circuit by increasing and decreasing a clock frequency of the integrated circuit (see column 3, lines 49-68; column 4, lines 1-55); **(7)** further comprising clock adjustment logic in communication with the fail-safe sensor to execute instructions to provide closed loop control of the integrated circuit clock frequency, thereby automatically reducing the temperature when overheating occurs (see column 3, lines 49-68; column 4, lines 1-55; column 5, lines 1-22); **(8)** further comprising clock adjustment logic in communication with the fail-safe sensor to decrease a clock frequency of the integrated circuit in response to the fail-safe sensor indicating that a threshold temperature value has been exceeded (see column 3, lines 49-68; column 4, lines 1-55; column 5, lines 1-22); ); **(11)** further comprising an interrupt handler to display information regarding a temperature sensed by the fail-safe sensor to a user of the integrated circuit (see column 4, lines 56-68); **(16)** further

Art Unit: 2825

comprising controlling the temperature of the integrated circuit by increasing and decreasing a clock frequency of the integrated circuit in response to the sensed temperature (see column 3, lines 49-68; column 4, lines 1-55); **(17)** further comprising executing instructions to provide closed loop control of the integrated circuit clock frequency in response to the sensed temperature (see column 8, lines 36-49); **(18)** further comprising decreasing a clock frequency of the integrated circuit in response to the sensed temperature indicating that a threshold temperature value has been exceeded (see column 3, lines 49-68; column 4, lines 1-55; column 5, lines 1-22); **(19)** further comprising displaying information regarding a sensed temperature to a user of the integrated circuit (see column 4, lines 56-68).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teaching of Matsuo (accordance with the teaching of Cacciatore). Doing so would facilitate the manufacture of the thermal sensor and reduce the operational cost loss.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong A Luu whose telephone number is (571) 272-1902. The examiner can normally be reached on M-F (6:15-2:45).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Smith can be reached on (571) 272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2825

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
CARIDAD EVERHART  
PRIMARY EXAMINER

CAL  
December 6, 2004